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LEADING ARTICLES

TOURING THE LANDS WHERE MEDICAL SCIENCE EVOLVED.

THIRD PAPER.*

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[FOR THE MEDICAL FORTNIGHTLY.]

MEDIEVAL AND RENAISSANT.

To Italy, more than to any other single country in the world, we are indebted for the earliest intellectual impulses that led in the direction of modern medical science. To the same country, however, we must credit the retarding influences which, for centuries, almost extinguished the spark from Aristotle that constituted the vital principle which finally led to science. During medieval times every idea of right had crystallized into inalterable formulas that it was deemed sacrilege to alter or disturb. The school at Salerno had accumulated a considerable amount of the semi-digested truths of the old Greek followers of Esculapius and the male and female professors of that institution were teaching them, to men and women students, in a most perfunctory manner. It is not quite certain just where the inspiration came from that made the Salerno school possible, but the facts seem to point to the monks of St. Bernard, of Monte Cassino, as the source of its parentage. These monks had in turn gained their light from the Greek traditions that hung around the temple of Apollo which they had appropriated as their home. Before the beginning of the ninth century the fame of Salerno, as a proper place in which to acquire medical knowledge, had extended to the ends of the civilized earth. The students were of many nationalities so that from here went forth most of the trained medical men of the world. But the blight of conservatism was upon this institution as upon almost everything else of that period, and as a result not one name, within the long list of its professors, has come down to our day as ever having done or said anything that would tend to immortalize his or her memory. When the new era of research came in Salerno clung fast to its traditions, entered into senility and, as a consequence, perished. The city still occupies the same beautiful site, on the Bay of Salerno, but its streets echo no more the noise of its polyglot students and the college buildings have left no trace of their ancient glory. But although as a corporate body it has disappeared from the earth it has left behind it some very healthy progeny. These the medical visitor to Italy can illy afford to miss seeing. The three most important, from the view-point of evolution, are the Universities o f Bologna, Padua and Pisa. Not to see these is, for the medical tourists not to see Italy. My sightseeing in this land of sunshine and historic romance, included the museums, palaces, and picture galleries of Rome, Florence and Sienna, the catacombs, churches, historic fountains, and ancient ruins of Rome, the cathedral monuments and palaces of Milan, the homes of the Doges, historic churches, and canals of Venice, the leaning tower and baptistry of Pisa, the monuments, palaces, and grand natural panorama of Genoa, and the vast multitude of beautiful and interesting sights in and around Naples, but none of them gave me the satisfaction that came from an inspection of the ancient Universities. Until I had seen the places where the germ of modern enlightenment began its unfoldment, where human eyes first saw the early dawn of liberty and truth, and where the struggling forces of radical and conservative thought found fitness in a genuine appreciation of that knowledge which has its

*The first chapter of this series of letters, "Grecian," appeared in the Medical Fortnightly, issue of October 10, 1908; the second chapter, "Christian and Saracen." appeared January 11, 1909.

foundation in the solid ground of nature, I was certain that I had not seen the best that Italy affords.

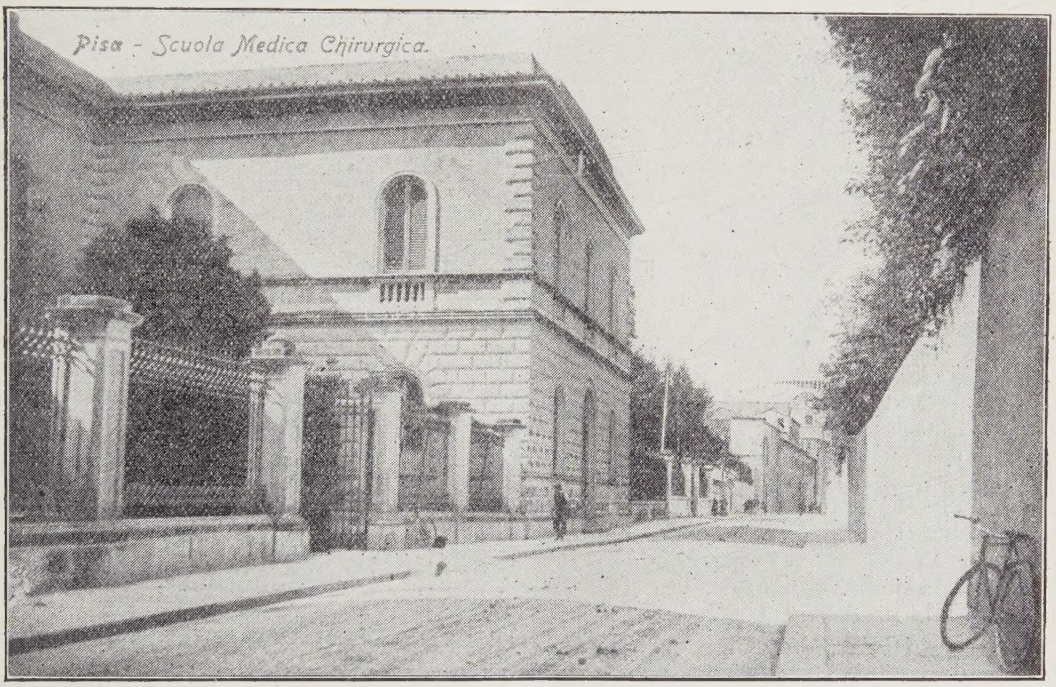
A study of the universities of Salerno, Bologna, Padua and Pisa, combined with a due appreciation of the weakness as well as the strength of Papal Rome, can supply the mind with a knowledge of how we came by a circumnavigated earth and much of the glory of this twentieth century of civilization. A single glance at a few of the names in the glittering galaxy of stars that shone out among the professors and students of these places of learning will quickly tell the tale of what they did for modern medical science. Bologna, the parent institution of Padua and Pisa, gave us Vesalius, the creator of modern anatomy, as one of its teachers. But as he taught in all three of these institutions every medical tourist should see them all for his sake alone. And what a battle he fought for us. Bat-eyed followers of inherited ideas refused to see the light that he produced. Look at Sylvius, even after Vesalius, had long been laid to rest, taking up the cudgels for Galen. Vesalius' demonstration that Galen's anatomy was defective inasmuch as he claimed for man an intermaxillary bone, as is found among the lower animals, Sylvius would not accept. When confronted with the actual skeleton of man he dared to reply: "Man had this bone when Galen lived. It is luxury, it is sensuality that has gradually deprived man of this bone." Another of the great men who taught at Bologna was Malpighius, the one who first described the development of an embryo, who first saw and showed to the world a blood corpuscle, who completed the work of Harvey by showing the capillary circulation, who discovered the cutaneous glands; who showed wherein the difference lay between negroes and whites by discovering the pigmentary layer of the skin, and who discovered the malphighian tubes and capsules of the kidneys. Mondino, the great anatomist, was also a teacher at Bologna and de Chauliae, the restorer of French surgery was his pupil there. Petrarch and Boccaccio, the fathers of the Renaissance, that brought redemption from darkness to Europe, were taught at Bologna and launched their much needed reformation from that seat of learning. Realdus Columbus, who almost completely anticipated Harvey by discovering the pulmonary circulation, was a pupil of Vesalius and lived and taught both at Padua and Pisa. Fabricus, the discoverer of the valves of the veins and the first to cast discredit on the old notions of embryology, taught at Padua. Harvey, the immortal discoverer of the complete circuit of the blood and the first to declare that all life comes from pre-existing life, was a pupil of Fabricus. In France, England, Germany, and elsewhere he was jeered at and mocked by the leading professors of physiology and anatomy, for daring to publish his "Exercitatio du Motu Cardis et Sanguinis" (Concerning the Motion of the Heart and Blood in Living Creatures). Riolan, the leading anatomist of Paris, jeeringly declared that what was true in this book was not new and what was new was not true. Fallopius, the discoverer of the fallopian tubes, taught at Padua and Pisa. Wirsung, the discoverer of the excretory duct of the pancreas, studied at Padua. Galileo, the world-renowned astronomer, taught at both Padua and Pisa. At the latter university he invented the pulsilogen—the earliest precursor of the sphygmograph—in order to test the oscillatory time of the chendalier in the baptistry at Pisa. There were no watches or clocks in those days, and so his own pulse was thus brought into use in order to discover a great law of nature. Caesalpinus, the greatest of the physician-botanists of the period of the Renaissance, taught at Pisa. Linneus called him the first systematic botanist of the world. His country claims for him the honor which the rest of the world gives to Harvey. Independently he made the same discovery of pulmonary circulation as did Realdus Columbus, but he did not trace the entire circuit of the blood as Harvey did. He was, however, the first to use the expression, "Circulation of the blood." Many other names of equal greatness came into prominence from these institutions in other departments of science than that of medicine. The famous universities of France, Great Britain, and Germany took these as their models, so that they are really children of the Italian schools.

What was the cause of such greatness? How came they to break the crust of medieval conservatism? Wherein lay the secret of their strength and of their rapid growth? How came Bologna to have as many as ten thousand students upon her rolls in a single year? Why were most of these students from foreign countries and chiefly from Germany? To get a proper answer to these questions is to discover the secret mainspring of medical evolution in the middle ages.

As my readers have already been informed, the good ship Barbarossa, of the North German Lloyd Company, carried myself and wife across the Atlantic on our grand tour around the world. The name "Barbarossa" hung like a vision of the past in some remote corner of my cerebrum.

"Who was this Barbarossa," I was asked

"for whom this ship is named?" All I could then reply was that the German king, Frederick I, who took an active part in the Crusades, bore this title. No one on board, among the passengers, seemed to know any more about him than I did. Not content with this meagre recollection, and having my curiosity aroused, I began the search for better information. Very soon I discovered that he was the central figure of Europe's greatness, for reasons that I am about to give. He stood in the center of a charmed circle of human ideality that has made the earth much different from what it would have been without him and without the idea he came, thence forth, so far as the Catholic world is concerned, the Emperor of all true Catholics, and of what is known as "The Holy Roman Empire." The various orders of knights arose, at a later date, as the warrior priesthood of this theoretical empire. They became to it what the Catholic clergy are to the church and its Pope, real soldiers of the cross, chosen defenders of Christ, and promoters of Christian chivalry. Along the line of approved succession, to the title of Caesar (Kaiser) in this Holy Roman Empire, came Frederick Barbarossa the king (Koenig) of the Germans. Because of the color of his beard his Italian subjects called him Bar-



A WING OF THE MEDICAL SCHOOL AT PISA.

represented. To understand him and this idea to which reference is made we must go back, in imagination, to the year 800 A. D. when Pope Leo III crowned Charlemagne of France, king of kings and spiritual perpetuator of the Roman Empire. By the theory of the Catholic Church Charlemagne became the ruler of all the earth. To him every king became a subject and every kingdom a vassalage. He had, at this time, conquered a goodly part of the earth, but in no spiritual sense was he believed to have the divine right to rule until it came to him, from God, through coronation by the Pope. Never, at any time, did either he or his successors become the accepted rulers of the kings of all the earth. After his coronation he barossa, which literally means red-beard. He was crowned emperor, at Rome, by Pope Adrian IV, in 1155. His own ideas of the dignity of this honor are set forth in a letter which he wrote to his German prelates, in which he says: "On earth God has placed no more than two powers, and as there is in heaven but one God, so is there here but one Pope and one Emperor. Divine providence has specially appointed the Roman Empire to prevent the continuance of schism in the church." It was in his capactiy of emperor that he led the knights, to the attack upon the Saracens, during the great Crusade in which he met his death. Of this event Brice, in his History of the Holy Roman Empire, says: "Germany was proud of a hero who

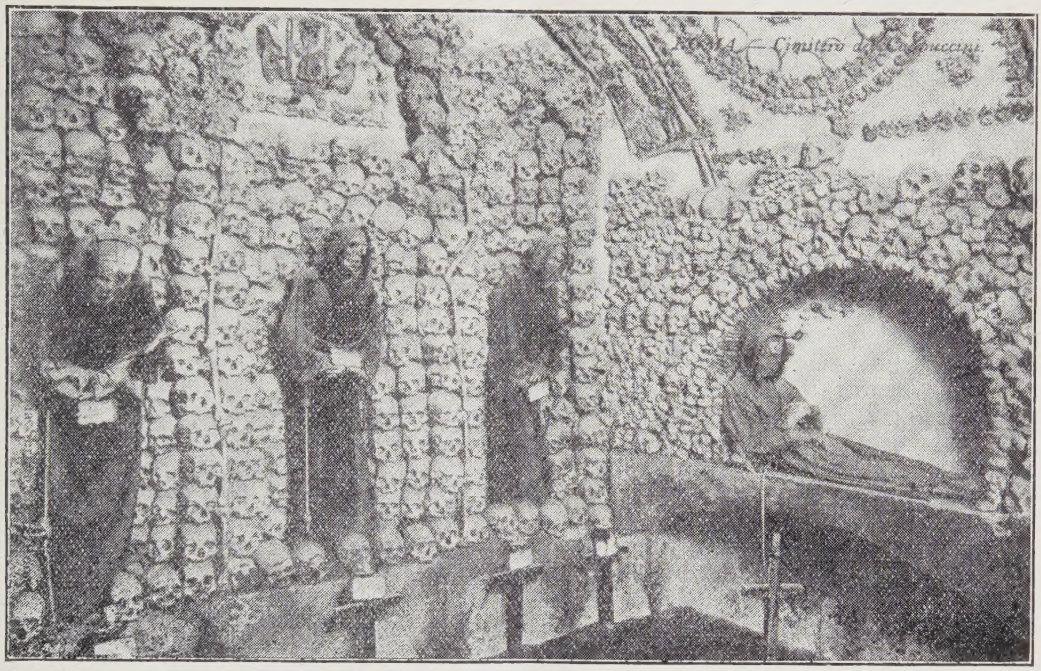
maintained her dignity so well abroad, and he crowned a glorious life with a happy death, leading the van of Christian chivalry against the Mussulman. Frederick, the greatest of the crusaders, is the noblest type of medieval character in many of its shadows, in all of its lights." As leader of the knights, and as head of the crusaders, he becomes the pivotal figure in surgical and medical experience that the crusades naturally brought. As spiritual chief of the Knights of St. John of Jerusalem, he was the director of their hospitals and head of their nurses and physicians. Not to dwell on this phase of his connection with medical evolution we must now consider the part which he took in the advancement of medical education. Of course it is impossible to separate what he did for medical education from what he did for education in general.

When on his way to the Holy Land Barbarossa found a condition of almost perfect anarchy at Bologna. Citizens and students were at war with one another. "I was a stranger and ye took me in" was the literal state of affairs of all students in that unhappy city. They were being robbed right and left and abused besides. Italy, at that time, and for generations before as well as after, was wracked and torn by party strife. City was at war with city and citizen with citizen. Questions of policy in government, between the popes and the emperors, were constantly bringing friction. A political party known as the Ghibelines stood by the policies of the emperors, while another known as the Guelphs hung with equal tenacity to the side of the popes. Padua and Pisa were usually Ghibeline, but Bologna was generally pretty evenly divided. A majority of the students were Ghibeline, while most of the permanent citizens were Guelph. Hence the antipathy between them. When Barbarossa passed that way trouble between citizens and students was at red heat. He at once had a code of regulations drawn up fixing the rates of charges upon students for necessary things, uniting all the teaching bodies into one corporation, and giving to students the right to appoint officers to try cases against themselves. Thus began the university. From this, with modifications, have come the pattern for all other universities that have come into existence. Prague, the earliest German university, copied from this. Disconnected schools there had been long before, but not universities. It was after the new incorporated form that Bologna grew to its unwieldy size, and it was the rights and privileges which he gave to students that tempted them, in such great numbers, to go to Italy for their education. It was this growth that created the need of Padua and Pisa universities, although the latter practically began its existence in Florence. Frederick II, grandson of Barbarossa, while he was Roman Emperor, established a university at Naples, but made the medical school at Salerno a department thereof and forbade the starting of any other medical school within the kingdom of Naples. Notwithstanding this monopoly Salerno began its decline. A new era was upon the world. The friction between Ghibelines and Guelphs had compelled men to think, and this independence of thought prepared the world for higher things which conservatism refused to accept. The death of Salerno as an educational center was thus foredoomed because it refused to keep abreast of progress.

All visitors to Rome visit the Vatican Palace. Comparatively few take the trouble of turning aside, from the Coliseum, to go and see the not far distant Lateran Palace and its wealth of historic treasures. The former is the home of the present pope, the latter the homes of the early popes from the time of Constantine up to the year 1309. Owing to the troubles between the popes and the emperors, which culuminated in the imprisonment of Boniface VIII, and his death in a few months thereafter, his successor, Clement V removed the seat of the papal court to Avignon, France, where it continued till 1377 from 1309.

In order to see Avignon the writer took a detour from his intended course, visited southeastern France, and thus made the acquaintance of the original "Windy city." Two objects inspired my movement in this direction. It was my desire to see the last resting place of John Stuart Mill and his beloved wife, and to become acquainted with the early haunts of the man who turned the world from the darkness of the dark ages to the luminousness of the Humanities. The immortal Petrarch was born near Florence, Italy, but his father having been banished from that city, along with the world-renowned author of The Divine Comedy—Dante—drifted to Avignon. Both Dante and Petracco, being what were called White Guelphs, got into trouble with the more orthodox Black Guelphs, had their property confiscated, and were banished from Florence. They were treated as Ghibelines and, therefore, as enemies of the city and of the pope. To this banishment the world appears to owe much. But for it Petrarch would probably never have lived at Avignon. But for it he would, most likely have been, like his father, a lawyer instead of a priest. But for it there is no likelihood that his emotional nature would have received the strain

that moulded him into the foremost poet of his age. But for it we have little reason to believe that he would have become the chief apostle of the Humanities. The story of his preparation for the part he has played in this world's development is one of pathos and of romance. As a young man he was a devoted Catholic and very pious. Soon after taking holy orders he met in the church of Santa Clara, Avignon, a pretty young woman, the first sight of whom captivated him. He thought he had never before seen anything framed in a curving coast of bewildering fantasy. He was enraptured and felt as if this must surely be a foretaste of paradise. Looking far down the mountain toward its base his eyes rested on Avignon, he thought he could see the church of Santa Clara, and in his ecstasy the beauty of his surroundings called up again the beauty of that face which he had striven to forget. In an instant the old spell was upon him, and in order to get the mastery of himself he took from his pocket the "Confessions" of St.



MONKS CEMETERY AT ROME.

so beautiful. On several successive occasions he met her again, but never reached close acquaintance. To his consternation he soon learned that she was the wife of another, so that there were two most serious obstacles between them—his vow of celibacy and her marriage. He struggled against his passion until he thought he had completely mastered it. Some years later he and his brother took a walk from Avignon and climbed Mont Ventoux for the first time. The day was a most lovely one, the sky and air faultlessly clear, and the scene intoxicatingly enchanting. Behind him lay the snow clad peaks of the peerless Alps. Before him was the long green valley of the Rhone dotted with villages, forests, castles and cities. Beyond this were the curving summits of Les Cevennes. To the south lay Marseilles with the blue waters of the Mediterranean, laden with the fleets of many nations, and Augustine that, as a priest, he always carried with him. In the very height of his ecstasy he opened the volume at random and, to his consternation, read: "Men go to gaze on lofty mountains and the mighty waves of the sea, and the wide currents of rivers, and the vast extent of ocean, and the circling courses of the stars, and they overlook themselves." The book fell from his hands as he raised them to his tear dimmed eyes. He saw in this the hand of God. Again picking up the fallen volume he started hurriedly down the mountain, with a heavy heart, and full of shame and contrition he went that night to his confessional. Thenceforward he was a different man. His heart was toned to a new passion—that of poetry. His verses were well received and when he touched the chord of the love—the lost love of Laura—his Madonna Laura—he caught the ear of the world. His Latin epic of Africa next won

him distinction among the learned, and it was not long before he was crowned Roman poet, in the Holy City. The author of the article "Petrarch," in the British Encyclopedia, says: "The ancient and the modern eras met together on the Capitol at Petrarch's coronation, and a new stadium for the human spirit, that which we are wont to style Renaissance, was opened." This occurred in April, 1341. Six years later Black Death entered Central Europe, by way of Genoa, and spread itself all over that continent. In April, 1348, Laura died of the plague, and in the same year he lost, from the same disease, many of his nearest and dearest friends. Ever after his poetry assumed a still graver type, and his "In Morte di Madonna Laura" is one of the saddest ever written. Two years later he met and made the acquaintance of Boccaccio, at Florence, and from the friendship that sprung up between these two great scholars it would be difficult to estimate the good that has come to this world of ours. Through their united efforts the shackles were broken and removed from the intellects of men. Their humanism was the vital element that made universal education possible. To them belong the credit of having determined the revival of learning and the destruction of the mental slavery of the dark ages. Without Petrarch Boccaccio could have done little, and to Petrarch belongs the credit of directing aright the mind of Boccaccio. In medical reformation the sledge-hammer blows of Petrarch were well aimed and effective. His book upon "My Own Ignorance and That of Many Others" was a most scathing indictment of the medical practice of the fourteenth century. He deemed their teachings narrow and impious. Narrow they certainly were whether they were impious or not. None dared to deviate a hair's breadth from the traditional letter of Galen or, if not direct Galenites, from the interpretations of Averrhoes. The shock of his attack was needed and the result effective. The horror of their helplessness in facing the terrors of the successive waves of plague lost them much of their ancient prestige. Petrarch had good cause to be sceptical and the public came to prefer quackery to the science, such it was, that they represented. But they were not entirely to blame for their helplessness. The church ascribed pestilence to the "pleasure of the almighty God," and a terror stricken people could scarcely be expected to be amenable to reason. If it was God's pleasure that so awful a disease should devastate the land what help could any one hope from human efforts. Again, the church took from them all right to dissect human bodies so that for knowledge of anatomy they were tied to that of quadrupeds.

A bull of Boniface VIII, excommunicated whoever dared to dissect a human body. This was issued but a few years before the so-called "Babylonian captivity of the church"—the removal of the Pope to Avignon It would be hard, however, to say which were the most superstitious, the doctors or the priests. Both were to some degree above the masses, but both were compelled to pander to a condition of ignorance that was condoned rather than condemned. The doctors did not have a free field for their efforts, for not only was there the usual "domestic" superstition regarding the proper care of the ailing, but there was, likewise, direct competition from the monks. For centuries these last named had been making good livings by charging large fees for remnants of ancient martyrs, waters of reputed holy wells, and portions of the "true" cross. Where these failed, or were deemed inadequate, prayers to saints were substituted, on the theory that these saints would intercede with Christ in behalf of the sufferer.

St. Anthony, the founder of their order, having a great reputation as a healer of the sick, was petitioned in behalf of all sufferers from "sacred fire," or St. Anthony's "fire," names they gave to erysipelas. Most pictures of this saint show a fire by his side as typical of his power over this trouble. St. Valentine, who miraculously healed the deformed son of the Greek rhetorician Craton, was invoked for the cure of epilepsy and kindred disorders. St. Vitus, who was reputed to have healed the child of the emperor Dioclетian, and whose father claimed to have seen him while in prison, dancing with angels was appealed to in behalf of those suffering from chorea, i.e., St. Vitus' dance. As insanity, and some forms of poisoning, manifested themselves in symptoms that simulated dancing this saint was likewise appealed to for these. In treating sore eyes the appeal was made to St. Clara, and in cases of toothache St. Appolonia was called upon for help. The theory that led to the reliance upon St. Vitus, in chorea, was a very ancient one, although generally accredited to Paracelsus. Many medical men of early times did not hesitate to use it as a guide, as it conformed well with the religious conceptions of those times. Known by the name of the doctrine of signatures it affirmed that God had stamped on many things marks which indicated that he intended them to be used for the healing of the sick. It was a sort of similia similibus idea, inasmuch as colors similar to jaundice were believed to mark the plants capable of curing that affliction.

Only plants with yellow flowers were deemed appropriate as remedies therefor. For blood diseases blood-root was deemed a proper remedy, and in case that could not be procured red flannel might take its place. This notion still lives even in civilized America. There are great numbers of plants that now bear names indicating this idea of curative virtue. Bright-eye, kidney-wort, mandrake, golden-seal, Jew's-ear, etc., are among the best known. These, of course, are English names, and only include the English phase of this delusion, but they answer better, as an illustration of the principle, than would unfamiliar Latin ones.

In olden times scrofula—general tuberculosis—bore the name of king's evil because of the then universal belief that royal persons had the "gift" of being able to heal this disease by the "laying on of hands." Dr. John Brown, surgeon to Charles II, of England, wrote a learned treatise to demonstrate the truth of this kind of healing. His royal master, during his reign, touched nearly 100,000 people for this disease. Not until the ascent of William of Orange was any effort made to check this kind of superstition in Great Britain. The first and only patient that he was willing to touch he rebuked in these words: "May God give you better health and more sense."

No better illustration of the mental attitude of the great masses, during the time of Petrarch, can be produced than that of their ideas concerning Caterina Beninoasa of Siena. Because this girl, a dyer's daughter, and a hysterical cataleptic, flogged herself till the blood streamed from her body, refused to comb her hair or wash her face, lived upon uncooked vegetables, wore a chain of iron around her body that gradually ate its way into her flesh, claimed to be in communion with Christ three times a day, fell into frequent trances, and finally, as testified to by her confessor, father Raimondo, received upon her hands and feet a supernatural impression of the scars and wounds that Christ had after being nailed upon the cross, was almost universally acclaimed a sacred person. This last so-called miracle is said to have occurred during a trance, which she had immediately after receiving the sacrament. As soon as she came out of it she called father Raimondo and said to him, "Be it known to you, my father, that I now bear on my body the marks of the crucifixion of our Lord Jesus Christ." She described to him the vision she then had in these words: "I saw the crucified Lord descending towards me with a great light, which caused me, from the impetus of my soul to meet its Creator, to raise up my body. Then I saw five bloody rays descending from the scars of his most holy wounds, and directing themselves to the hands and feet and heart of my body. Upon which knowing what the mystery was, I exclaimed, O, Lord, my God, let not, I pray you, the scars appear externally upon my body, it is enough for me to have them internally. Then while I was yet speaking, the rays, before they reached me, turned from blood-color to a pure and splendid light, and touched the five parts of my body—that is my hands, my feet, and my heart." This young woman was canonized by Pope Pius II, and thenceforth has been known as Saint Catherine of Siena. That her power over the men and women of her time must have been very great is attested by the fact that whereas Dante, Petrarch, the princes of the church, the greatest and best men in Italy, had striven in vain to persuade the Popes to leave Avignon and return to Rome while she, a practically insane young woman, was able to succeed. In the summer of 1376 she proceeded to Avignon, pleaded with Gregory XI, and against his own interests and the interests of his own country of France, caused him, in the September of that same year, to return to Rome. Mr. Heywood, in his Guide to Siena, tells us that "it would hardly be too much to say that, for many persons, Siena is simply the town of St. Catherine." The House of St. Catherine is one of the first places that the local guides take tourists. It was here that she was born. It was here that she had her vision of betrothal to the Infant Christ and that has become a favorite theme among painters. In this building are kept many relics of this saint and celebrated artists have decorated its rooms with the best of their art. The Hospital of Santa Maria della Scala is where she acted as nurse during the plague. In the chapel of St. Catherine, of the church of San Domenico, there is a shrine in which is kept her head. Baedeker stars the frescoes, by the celebrated artist Sodoma, that adorn this chapel and pronounces them "admirable." The graffito pavement is said to represent Esculapius, but this has been questioned by Mrs. Alcott. In death, as in life, St. Catherine has been honored in a manner that can leave no room for doubt of the high estimate in which her fellow citizens, held her. In our day she would be consigned to a mad-house, if she attempted such antics as artists, historians, and her father-confessor declare her guilty of. Yet it was these very acts, and not her devotion as a nurse, that won for her the favors she received. No Hindoo fakir ever went to greater extremes of wild fanaticism. Never did the Hindoo people pay more

reverence to their insane "holy men" than did the people of Italy to this woman.

When we pause and try to picture the mental condition of the then best civilized part of the earth, and of some of the best people of that time, as displayed in their reverence for St. Catherine, how is it possible for us to refrain from feeling that Petrarch's work was needed and needed badly. The so-called educated masses required enlightenment in order to permit of the use of enlightenment in treatment by physicians. If, in this age, the scientific medical man is held in check by popular superstition what must it have been at that period in the world's history? Petrarch appeared none too soon as the high priest of popular enlightenment. What if it was carried on as a fad by many the results show that the earth was ripe for it. He inspired men to start libraries, collect coins, relics and other material for museums, study classical authors of every kind, and drove medical men from the slavery of a single master to the freedom that came from many. In many ways he was very narrow himself, but his wide scheme of catholic conception made him build better than he knew. The foundation he laid wiped out narrowness of vision for many, and its results are still wiping out narrowness of vision for more.

But for the reform of mental method which he started it seems impossible to conceive of there having come into this world, at the time they did, the men of whom we are so proud today. Strike out Petrarch and it surely looks as if we could have had no Vesalius, no Malpighius, no Harvey, no Caesalpinus, no Realdo Columbus, no Fabricus, no Galileo, no Copernicus, nor any of the free minds who dared to defy tradition and sacrifice their comfort in behalf of natural knowledge. Humanism was the survival of a fitness that very quickly gave us the great universities of Strasburg, Nuremburg, Basel, Augsburg, Heidelberg, and all other great institutions of this kind. Had it not broadened men's minds it is hard to see how we could have reached the conditions that gave us a Christopher Columbus, a Vasco de Gama, or a Magellan. The great Professor Emil du Bois-Raymond, in an article upon Civilization and Science, published in the Popular Science Monthly many years ago, in referring to this period of the world's development says: "The best minds of the time expended no end of labor and ingenuity in distinguishing between absurdity and nonsense. Like a plant in the dark, the ancient philosophy put forth colorless and weakly sprouts which sought the light mainly in two directions, platonistic tendencies finding expression in an insane gnosticism, and Aristotelian tendencies in barren scholasticism. Scholasticism held the ground longest, and the sholastico-ascetic period will always remain as a warning to show what length the unaided human mind, divorced from the world of reality, and without the revelation of Nature ean go astray. Inasmuch as humanity recovered from this madness through the study of the ancients, revived by Petrarch and Boccaccio, the next ensuing stage of development is called the stage of humanism. * * * * * * * * As we have seen, the ancients knew nothing of natural science, in our sense of the term. Is it not, then, a very curious circumstance that the resuscitation of classical studies should have given the impulse to the development of modern natural science? That the ancients, who themselves could not think scientifically, nor experiment, nor even observe, should now, by their teaching and by their ideas, produce a race in whom these faculties were to go on steadily and incessantly developing—a race bearing to the authors of its intellectual culture the same relation as subsists between a brood of ducks and the hen that has hatched them out?"

It was simply and wholly due to the emancipation of men's minds from the control of the bigots who scented danger in every new truth and considered themselves the ordained of God for the censuring of all ideas that did not seem to suit their fancy. Slowly but surely we are learning that the men of new ideas are the men to be encouraged, while the men who refuse to let mankind know that a new idea has facts behind it are the worst enemies of the race.

Dryness of the pbaryngeal wall is usually associated with an atrophic rhinitis.

Science could achieve no greater victory than the discovery of the specific cause of cancer, or a reliable cure. That the cause is an organism is no longer debatable. Doctor Anders, of this city, recently pointed out no less than seventeen different particulars in which cancer is identical with diseases of known bacterial origin. There is a widespread concreted movement on the subject and no field of investigation promises larger or earlier results. In the meantime the general practician and intelligent layman should be a unit in the application of what knowledge we possess to the prevention of the spread of this most dreaded disease.—Med. Council.

DEEP ALCOHOL INJECTIONS IN FACIAL NEURALGIA.

B. L. HALE, A. B., M. D.

CHERRYVALE, KANS.

THIS is one of the diseases that has baffled the skill of the physician. The trouble is in the fifth nerve. This nerve is peculiar in arising from two roots, a motor and a sensory, as do the spinal nerves.

The sensory root fibres pass from the Gasserian ganglion, which lay in a recess in the base of the skull. The motor root passes beneath the ganglion without having any connection with it, and passes outside the cranium and unites with one of the trunks derived from the ganglion. The fifth nerve divides into three branches; the ophthalmic or first branch, the superior maxillary or second, and the inferior maxillary or third.

The ophthalmic branch and the superior maxillary consists exclusively of fibres derived from the large root and ganglion and are wholly sensory.

The inferior maxillary is joined outside the cranium by the motor root, making it resemble a spinal nerve.

The ophthalmic, or first division supplies the eyeball, lachrymal gland, mucous lining of the eye the nasal fossae, and the integument of the eyebrow, forehead and nose.

The ophthalmic is the smallest of the three nerves.

The superior maxillary, or second division, is a sensory, and supplies the side of the nose, lower eyelid and upper lip.

The inferior maxillary, or third branch, supplies the teeth and gums of the lower jaw, integument of the temple and external ear, lower part of the face and lower lip, the muscles of mastication and the tongue. The injection of the second branch has no effect on motion, affecting sensation only. The injections of the third branch affects motion to a marked degree, lasting sometimes for several weeks.

The pain from this disease is something to be dreaded, the patient living in mortal agony. They go with their face and head tied up will fall down most anywhere shreiking with pain. The paroxysms are of short duration, but painful spots will remain that cannot be touched without provoking an attack of pain, for instance the patient will be unable to touch the end of his nose. The location of the pain will generally direct you to the nerve affected. There will be a continual twitching of the muscles of the face.

Treatment.—So far as the medical treatment is concerned, but little can be done, as drugs have failed only in isolated cases. The resection of nerves has not been successful. The treatment upon which most reliance is placed today is the deep alcoholic injections. The formula:

℞ Alcohol 3iii
Cocaine .....gr i
Chloroform.....*m*x
Water q.s. pt.....3ss
Inject about 30 m.

The Instruments.—You take a needle about 3¼ or 4 inches long, marked from the point in centimeters up to five. The wire plunger file off flush with the point of the needle, using a syringe, preferably glass of 30 m. capacity.

To introduce the needle withdraw the plunger a little way until the needle passes beyond the integument and outer fascia, then send the plunger home, thereby making a blunt point and avoid injury to the blood-vessels. To inject the inferior maxillary you introduce the needle just anterior to the condyloid process and push the needle straight in for four centimeters, which will reach the foramen ovale, point of exit of the nerve and inject slowly.

To inject the superior maxillary branch you introduce the needle just below the zygomatic arch just anterior to the tip of the corocoid process, the needle pointing slightly upward, go straight in to a depth of five centimeters which will reach the foramen rotundum point of exit of the nerve and inject slowly. To inject the opthalmic branch insert the needle external to the eye opposite the fronto molor suture passing the needle along the external orbital wall to a depth of 3.5 centimeters to 4 centimeters and inject slowly. This is said to be the most dangerous injection, on account of the proximity of the optic nerve. In each case leave the needle in play about two minutes to prevent oozing of blood.

It is unnecessary to use an anesthetic, the pain will not be great. Better for the patient to have him lying down during the operation. Must observe surgical asepsis in every particular.

Inject four or five minims at a time until the 30 m. are injected, taking from one to two minutes to do the work.

CASE I.—Mr. J. T. B., male; farmer; aet. 58; afflicted for thirteen years; emaciated, anemic and weak. His suffering has been what you might call continual, as he had no rest spells of any consequence. The treatment that he received during this time did him no good whatever, but, as he said, made him worse. Had doctored with quacks and with people who were not quacks. Region of

pain tenderness: Forepart of scalp on right temple region over the zygoma around right eye, right half of nose inside and a point on the cheek about the middle and near the base of the nose. At this point is situated a wart, the wart being the center of the painful spot. This wart he could not touch, and could not touch the end of his nose. Continual twitching of the facial muscles on each side of nose. In cool weather always went with his head wrapped up and a patch over the wart. He could not work with any ease, as a misstep or a little jar or jolt would bring on a paroxysm of pain.

September 18th, 1908, I injected the third branch, using 30 m. In three hours all pain was gone. When he entered the office for his first treatment he groaned with every breath. Pain returned on the following night.

October 19th pain was only in one place, which he described as being under the cheek bone. The wart spoken of above could be rubbed vigorously. The pain under the cheek bone was duller than pains formerly were and without paroxysms.

September 22th, talked with patient for two hours and had no pain; said a few days before he had several bad attacks of pain; had exposed himself to a rain.

October 3d, saw patient, he was free from pain, but reported attacks a few days before.

Results of Injection.—Had difficulty in swallowing, but had this sensation before numbness over zygoma and along lower jaw, stiffness in articulation of inferior maxillary bone; this stiffness had not entirely disappeared October 3d; been sleeping well; no fever at any time.

October, 7th I injected the middle branch at 3:30 p.m.; at 2.30 he took ¼ gr. morphia, as he insisted upon it. Immediately after the injection the tender places could be rubbed vigorously without causing pain. The first few drops of the injection he complained of sudden pain in the eye, which lasted ten or fifteen seconds. Amount injected 20 m. The place bled for about one minute. The face swelled immediately and rapidly after the injection, but not to any great degree.

In ten minutes' time he got off the table, put on his coat and went out on the street. Saw him at 7 p.m., face feeling sore, some nausea at intervals; no pain.

October 8th patient called at the office, no pains, but face felt sore from the injection, no great degree of swelling. Tender to the touch near the wart and up above the temple; no rise of temperature.

October 13th, no pain since second injection. He feels twinges, but no pain; very tender on front of cheek near ala of nose and at upper external part of orbit. Face still very sore.

October 17th, has had no attack of pain. Face is still sore and numb. Has tender spot at outer corner of right ear, and just above upper lip near the nose; eating and sleeping well. Face a itle sore and numb; tender spots the same.

January 10, 1909, patient is free from pain, eating and sleeping good. He has taken no internal treatment.

A CONTINENT WITHOUT AN ORPHAN.

BAYARD HOLMES, M. D.

CHICAGO.

It has been one of my duties each year to review for the medical press the report of the Children's Council of South Australia. Under the inspiration of a true democracy the orphan asylum has disappeared in Australia and New Zealand, and the children of the state are provided with homes where they are "subsidized" and supervised. The delinquent children are also treated by the same method, often being returned to their parents, in which case both the child and the home are under supervision and inspection. The Children's Council has charge of the foster mothers and the lying-in houses also, in fact it acts in the place of the parent of the destitute, neglected or delinquent child. All illegitimate children are at least under its supervision.

The Children's Council for South Australia reports 1,336 children under its care; 1,097 were placed out mostly on farms, 54 were in the reformatories, and the remainder in various other institutions, hospitals or schools.

Only one quotation and I am through: "The applications for state children have this year been somewhat fewer than last, but are greatly in excess of the number of available children, excepting infants and elder service boys. So many persons ask for children of 4 to 6 and 13 to 15 that it is impossible to supply the demand."

The expenditures of the Council are about $100,000 per year.

A full account of the activities of the child saving department of the Australian Commonwealth was published in American Medicine, 1908.

The temperature in urinary tuberculosis assumes a remarkable variation—depending on the conditions of mixed infection—Byron Robinson.

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EDITORIAL

The Missouri State Sanatorium.

THE Biennial Report of the Missouri State Sanatorium for the treatment of incipient pulmonary tuberculosis announces some extraordinarily striking results. Over 93 per cent of all cases taken into the Sanatorium are reported upon as having made good improvement. Over 99 per cent of all cases who on admission were judged to be suitable cases, have done well. On account of the short time that the institution has been open, the larger number of the patients are still pursuing the treatment more or less vigorously, either in the sanatorium or at home. It is not possible at this date to announce the number of absolute cures, or even the number of arrested cases. Many of the discharged cases are leading useful lives in their old routine. So far as known by the superintendent, and he endeavors to keep in touch with all discharged patients, only two patients that did well at the sanatorium have gone down again after going home. This is, it should be noted, in spite of the fact that a considerable per cent of the patients have left the institution on their own volition, and often against the advice of the sanatorium authorities, who take the position that the thing to do is to play safe. Its better to stay at the sanatorium two months longer than absolutely necessary than it is to leave it ten days too early.

The sanatorium is now much overcrowded —70 people occupy the spaces planned for 48. Nearly every day people visit or write the sanatorium in the interest of some relative or friend who has fallen a victim to "consumption," and who wishes to be admitted as a patient to the sanatorium. Not half the people seeking admission can be received.

Its the duty of the State to make room. The Sanatorium Board of Managers are asking—yes, pleading with—the legislature to give more of the poor suffering tuberculosis patients a chance to get well, by providing for more buildings at the Mount Vernon Institution. Less than $400,000 are being asked for. This may seem on first thought to be too large, owing to the present depleted condition of the State treasury. But think! Suppose every man in this great bountifully God-blessed, and wealthy State of Missouri who is the possessor of $1,000 or more was assessed in addition to his present tax, one dollar per thousand, much more than $400,000 would be raised, and no one would miss or regret the extra tax, and those who were unfortunate enough to have dear ones in the grasp of "The Great White Plague," would feel, and no doubt in many cases would voice the deepest sentiment of thanks. (This is not suggested as a method of raising the State revenues—it is a mere illustration.)

Many of the readers of this will say, "we are too poor, there's no use." "But," I exclaim, "my dear uninfluencable Missourian, suppose it was your mother, or your wife, or your daughter, that was denied admission because the sanatorium was too small—would it seem to you that a few thousand dollars was of much consequence in comparison with the life of your dear one?

Here is another viewpoint. The sanatorium is classed by the statutes as an elemosynary institution. I wish to support the premise that it would correctly be classed as an economic or an educational institution. Every patient to die of tuberculosis costs his family for every day of his illness one dollar or more for care, one dollar, his own lost wages, and one dollar for medicine, nurse and physician. These figures err in being much too small. Nearly every tuberculosis patient is incapacitated from his work for about one year previous to his death. Figuring from the above data we find that each patient costs his family in the neighborhood of $1,000. Had the patient lived out his expectancy he would have had perhaps thirty productive years. Many tuberculosis patients are afflicted in the prime of life. In thirty healthy useful years a man should earn on a low estimate $10,000. Missouri is losing yearly by this course of figuring from ten to twenty million of dollars, from the dread monster tuberculosis.

If some foe would attack our stock—cattle, mules, hogs, chickens, horses—and carry them off in even half the numbers that tuberculosis claims from our citizens, every loyal Missourian would be demanding some stringent action on the part of our law-making bodies. Is there any reason why Missouri-

ans will not appraise her people as well as her stock at the proper value.

Other states and countries are trying to save the lives of their people. Germany, England, Sweden, Holland, and even many of the insignificant countries of Europe, are spending thousands and thousands of dollars every year, to stamp out "The Great White Plague." They are succeeding too. The warfare in Germany and England has been under way the past decade, and the death rate now in these places is less than half what it was ten years ago. Think! Is this worth while?

New York, Massachusetts, Maine, Pennsylvania, and many other states are spending hundreds of thousands of dollars every year in the fight against consumption.

And the results are that now in the larger cities where the fight has been waged the longest and the hardest, the death rate from consumption has been decreased already in these few years nearly 50 per cent. Is this worth while? Should Missouri care to do any less? Does Missouri need to take a back seat Ought we not take pride in setting a pace for Kansas, Arkansas, Texas, Nebraska, etc.?

When you, reader, have read this far go back and read again the introductory paragraph.

The motto of the sanatorium is, "One more patient taken, one more life saved." The State has invested at the present time in the neighborhood of $125,000 in the buildings and grounds of the sanatorium. At least 125 lives have been saved directly by the sanatorium, and perhaps an equal number have been saved indirectly, among those who could not come to the sanatorium, but had heard of "the cure" from some one who was fortunate enough to be at the sanatorium. Is 125 lives a low rate of interest on $125,000?

Whereas one of every eight deaths in Missouri is due to tuberculosis, and whereas it a rare family that has not had the saddest of sad experiences, on account of tuberculosis, and whereas treatment for tuberculosis under proper conditions and surroundings is thoroughly efficacious and satisfactory, and whereas, the sanatorium is both an economic and educational institution, is not $400,000 a very paltry sum for the State of Missouri to devote to so worthy a cause?

The education of a child may be postponed a year and it makes little difference, as the child can begin just as well the year later. The poor afflicted consumptives go on down to the grave while we are waiting to provide a place for them. Think! Act! Legislator, you have a duty! Citizens urge them to do it. Let all those who have had experience with tuberculosis make an urgent appeal to the legislators. B.

The Real Argument Against Dogs.—All our arguments against the existence of the dog pest seem to have been wide of the mark; it has remained for the editor of the New York Medical Journal to make a diagnosis and a prognosis. No dog on his evening's outing has ever used our door-steps as a depository, and we have been so fortunate as never to have had this objectionable characteristic so emphatically brought to our attention. The editorial in the Journal for February 6th is good reading, and we could wish some of the ardent dog fanciers a similar experience.

Our State Penitentiary.—The recent report of the State Board of Health on their findings after an inspection of the State penitentiary at Jefferson City has led to considerable comment on the deplorable sanitary condition of the buildings, which should be models of everything desirable along these lines. As a result of the report Gov. Hadley has urged upon the Legislature the necessity of appropriating $250,000 for the erection of new cell buildings. The recommendation accompanied comments by the Chief Executive upon the report of the committee which recently found unsanitary conditions at the prison. He promises many reforms and states that an inspection of the big prison is hereafter to be made, twice a year at any rate, by the State Board of Health, which has a technical knowledge of the sanitary needs of the institution. Tubercular convicts, the Governor says, are to be placed in a camp on the prison farm if plans he has in view can be perfected.

Affiliates with State University.—The College of Medicine of the University of Southern California has become affiliated with the University of California, Berkley, the application of the faculty of the former institution for transfer having been approved by the trustees of the University of Southern California January 28.

Plan to Prevent Blindness.—The Illinois commission to inquire into the condition of the blind will report to the legislature the following bills: To prevent ophthalmia neonatorum; to enlarge the State School for the Blind, Jacksonville; to rejuvenate the Illinois Industrial Home for the Blind, Chicago; to care for the aged blind; to create a state commission for the blind, and to appropriate $1,000 for a state census of the blind.

ST. LOUIS ITEMS.

A St. Louis branch of the American Society of Sanitary and Moral Prophylaxis has lately been organized with a strong membership. The first aims of the society are educational, and it is believed that it will demonstrate its benefits here as it has in communities where it has been some time doing effective work.

A St. Louis Tuberculosis Sanitarium.—It has been recently urged on the civic authorities by the Tuberculosis Commission that several changed might with advantage be made in our hospitals. With the completion of the City Hospital it is urged that the present Female Hospital be devoted to tuberculous patients. Also that Quarantine Station below the city be converted into an open air sanitarium for the same class of patients. It is pointed out that Quarantine as now conducted consists of a rather elaborate and expensive plant with very few patients, and that the acres and buildings owned by the city there might be serving a purpose of greater benefit.

The St. Louis Pure Food Commission held its annual meeting recently and the reports of its activities show that it is contributing in a decided manner in the preservation of infant life and health. Under its supervision there was a daily distribution last year of 450 gallons of certified milk. Dr. Albert Merrell, the president, in his annual report, recommended that steps be taken to place the distribution of the certified milk in the hands of the city, with a view to the establishment of municipal distributing centers. Nine new directors were elected for terms of three years. They are Samuel Cupples, Mrs. J. B. Shapleigh, Drs. J. C. Falk, H. J. Scherck, A. S. Bleyer, D. L. Harris and L. H. Behrens and William Burg and Thomas A. Buckland. The others were chosen to fill unexpired terms of one year. They are Philip L. Seamon and Dr. John Green, Jr.

A mass meeting of the local profession was held on the evening of February 6th and four physicians, Drs. Morfit, W. G. Moore, Homan and Jno. Green, Jr., were selected as possibilities for the Board of Thirteen Freeholders which is to frame a new charter for St. Louis. The Civic Committee decided to forward Dr. Morfit's name, together with twenty-five others, and it looked well for there being one strong medical man among the thirteen, but appearances were deceiving. No medical man appears among the thirteen o be voted on at the election. It is said hat politics is responsible, also that the feeling that medical men are not fitted to draw up such instruments is responsible, but it appears to many in the profession that the real reason lies in the lack of unity within the profession, and the fact that those who are denied cake are determined that no one else shall eat cake.

MEDICAL SOCIETY OF THE MISSOURI VALLEY AT ST. JOSEPH.

The program of this progressive society just received, shows thirty-three excellent papers by men of acknowledged ability, and calculated to interest every one in attendance, whether in general practice, surgery, or following special lines. The addresses are to be given in the evening of the first day, in the banquet hall of the hotel Robidoux, followed by a smoke and entertainment at the Elks Club, where the members will be the guests of the St. Joseph-Buchanan County Medical Society.

The address on Public Health will be by Dr. Walter Wyman, of Washington, D. C., surgeon-general of the Marine Hospital Corps; the Surgical address by Dr. H. J. Boldt, of New York, on "Cancer of the Uterus;" the address in Medicine, by Dr. N. S. Davis, Jr., of Chicago, on the "Diagnosis of Bright's and Allied Diseases." A cordial invitation is extended to the medical profession.

After adjournment a fraternal excursion will be taken to Sulphur Springs, Ark., upon the invitation of Benton County Medical Society. Copies of the program, and full information regarding the excursion will be cheerfully furnished upon application to the secretary. Do not forget the date, Thursday and Friday, March 18 and 19, 1909.

Chas. Wood Fassett, M. D., Secretary,
St. Joseph, Mo.

Correctness of onomatology is even more an index of character in science than in daily speech. Only he to whom conceptions are indifferent in want only careless as to the words in which they are clothed.—A. Rose.

Cats to Prevent Pest.—Since Prof. Koch recommended the keeping of cats in the household as a prevention of the pest, the Japanese commenced investigations to compare the distribution of cats in connection with the pest districts; in Osaka, a city of 1,500,000 inhabitants, 54,389 cats were found in 48,222 families, and besides these, 5,696 stray cats. It was noteworthy that in these districts which were affected mostly by the pest, no cats were found. It is said that the Japanese recently ordered 5,000 cats from Chicago.

MEDICAL PROGRESS

Comprising the Regular Contributions of the Fortnightly Department Staff.

THERAPEUTICS.

E. S. MCKEE, M. D.

The Treatment of Chronic Eczema.—The prize offered by the New York Medical Journal for the best essay on the treatment of chronic eczema was awarded to Dr. R. T. Sutton, of Pittsburg, Pa., whose essay appears in the issue of January 30, 1909. Dr. Sutton says in brief: A general plan for the treatment of chronic eczema may be summarized as follows: Remove all external irritation. Clean out the intestinal tract. Prohibit the ingestion of stimulating and fermentative foods. Get rid of redundant epithelium by the appilcation of salicylic acid plasters or like keratolytics. If necessary hasten the absorption of exudates by the application of a rather strong tar preparation. Soothe inflammation and allay itching by the use of carbolated zinc oil or a mixture containing a small percentage of liquor carbonis detergens. The general physical condition of the patient should receive careful attention. Unless the disturbing cause be removed relief from remedies is but transitory, this is especially true if the disease be due to long continued local irritation as in occupation dermatoses. If the patient is weak and anemic liberal amounts of nutritious food should be given, but in the majority of instances it is necessary to restrict the diet to the simple and more easily digested substances. Drink plentiful amounts of water between meals, but avoid tea, coffee, alcohol and tobacco. Bowels require calomel and a saline every ten days, and so regulated by cascara if necessary, so that there are one or two loose movements per day. In plethoric and gouty individuals an early morning dose of sodium phosphate is beneficial. Generally speaking the use of soap and water is contraindicated. In the local treatment thickening and infiltration are conditions to be overcome.

Formulas.—We find the following new formula for glycerine suppositories in Pharmaceutische Zeitung:

Coca butter	20.00
Glycerine	20.00
Adeps lanna	.50

Melt these remedies together until a thick homogeneous liquid is formed, then pour into moulds. This should make twelve suppositories.

The following is the formula found of special benefit in sciatica by Yzeta:

Olive oil	250.00
Aqua ammonia	40.00
Oil of turpentine	75.00

This liniment he directs be rubbed in night and morning over the painful area.

Bronchitis in infants is successfully treated, according to Journal de med. de Paris by evaporating in a teapot or special vaporizer a teaspoonul of the following mixture in five ounces of water three or four times a day:

Wood creosote	4.00
Tinct. benzoin	8.00
Oil of turpentine	75.00

Nux vomica for coryza in quite large doses, fifteen drops in one-half glass of cold water, every three hours, is recommended by Dr. Wm. F. Barclay, of Pittsburgh. He has found this treatment safe and satisfactory in the acute stage and acts as a tonic during convalecsence. During this latter stage it should be given but three times per day. He has the tincture of nux vomica prepared fresh from a reliable solid extract as that made from the fluid extract is practically inert. He recommends at the same time spraying the nose with a solution of adrenalin chloride in a saturated solution of boracic acid.

Pulsatilla for suppression of the lochia has been recommended very highly as a valuable remedy in this condition named. Shoemaker in his Materia Medica says that Phillips has found it of benefit in sudden suppression of the menses and lochia. It is given in five minim doses of the tincture every two or three hours.

Moist relapsing eczema has been very successfully treated by Dr. John E. Tomlinson, of London, by painting the parts four times a day with the tincture of iodine. The itching was promptly relieved, the vesicles dried up and the skin peeled off and a new and healthy skin appeared. This is a simple remedy for an intractable disease, and merits a trial.

The treatment of coccygodynia is discussed in the London Practitioner and the following ointment recommended: Tincture of aconite one-half drachm, belladonna ointment one ounce. This can be easily remembered by Americans who recall the days of 16 to 1. The application of the actual cautery over the coccygeal region is, in fact, the best remedy to relieve the pain where it is feasible.

Icterus neonatorum has been recently studied in the Muenchner med. Wochenschrift by Pfannensteil. He says that it is always wise to promote diuresis and to employ enemata of camomile tea. He in some

cases used subcutaneous infusions of normal salt solutions. He says that the causative factors underlying icterus neonatorum are unknown, but in some cases he has been able to form a probable theory.

Liquid Antiseptic Soap.—Wiebert, pharmacist to the German Hospital, Philadelphia, according to the American Druggist, gives the following formula:

Cotton seed oil		
Alcohol	aa	300.00
Aqua		325.00
Sodium hydrate		45.00
Sodium carbonate		10.00
Sulphuric ether		15.00
Phenol liquefactum		25.00

The oil is placed in a flask, 300 grammes of alcohol added as well as the sodium hydrate. The mixture is heated on a water bath until it is completely saponified. It is then cooled and the rest of the alcohol, and the sodium carbonate dissolved in water, are added. Finally the carbolic acid and the ether are added, and the whole shaken and filtered. This soap is a yellowish liquid, with an ethereal odor and an alkaline reaction.

Local Pain Reliever.—The following combination, according to Albright's Office Practitioner, is a most excellent application for pain:

Gum camphor		15.00
Chloral hydrate		15.00
Oil wintergreen		15.00
Fluid ext. of cannabis indica.		4.00
Alcohol	q. s. ad.	90.00

M. S.: For external use.

The above combination results in a beautiful green oily liquid, which often obviates the use of a hypodermic to relieve pain, whether from neuraliga or local inflammation.

Lotions for Pruritus.—

Resorcinolis		ʒiiss
Thymolis		grn. xv
Sodii boratis		grn. xxx
Phenolis liquefacti		
Glycerini	aa	fl.ʒiiss
Alcoholis		fl.ʒij
Aquae, ad		Oj

M. Sig.: Apply externally.

Sodii salicylatis		ʒiiss
Chloralis hydrati		ʒj
Glycerini		
Alcoholis	aa	fl.ʒiiss
Aquae, ad		fl.ʒvi

M. Sig.: Apply externally.—Jour.A.M.A.

PUBLIC HEALTH AND HOSPITAL EXHIBITS.

Government Plans an Educational and Practical Display at Seattle in 1909, of Great Beneficial Value to the Public—Plans in Detail.

One of the chief benefits of a great exposition where the handiwork of man is shown in all its many phases, is in the educating of the masses on subjects of which the vast majority of the people are either ignorant or at the best but poorly informed. The progress of medicine and medical science, the great discoveries of the men who devote their lives to research and investigation, the value to the human race of the proper observances of the laws of saintary science and hygiene are all matters of which the public are vitally in terested and are willing to be informed when the opportunity presents itself.

The authorities of the United States government propose to do much toward educating the public, swing modern appliances and methods of treatment and illustrating thevalue of sanitary laws and practical hygiene at the Alaska-Yukon-Pacific Exposition which will be held in Seattle in 1909. One of the features of the exhibit of the treasury department in the government building will be that of the Public Health and the Marine Hospital Service. The exhibit will be arranged for giving the greatest amount of information in the simplest and most thorough manner. Demonstration of great value for the layman's knowledge will be held. In its report to the officers of the exposition the depart ment outlines its exhibits as follows: "The Surgical Section will consist of a model operating-room, having in the center wax figures showing a surgical operation in progress. Aronnd the side of the room will be placed steam sterilizers for dressings, water sterilizers, irrigating stands, an instrument each, containing a full surgical armamentarium, glass topped bottles, glass basins, and all the other appurtenances of a fully equipped operating room.

"The Laboratory Section is to contain various apparatus constantly used in the Hygienic laboratory in the solution of public health problems. This includes laboratory glasware, sterilizers, thermostats, embedding apparatus, microscopes, microphotographic apparatus, etc. Petri dishes containing cultures of bacteria, isolated from contaminated vaccine virus will be shown. A travelling laboratory is included in this section, two such outfits being constantly held in readiness by the service for field work or for use in the event of outbreaks of epidemic dis-

eases in various part of the country. In addition there is to be a very complete helminthological collection. This collection is of great value in view of the increasing attention given to parasites in relation to diseases of man. A macrograph is used to enlarge microphotographs of various pathogenic bacteria, annual parasites and other specimen related to diseasse.

"The Hospital Section will comprise a record room and model ward. The record room contains various service publications, a hospital library, clinical histories with their method of filing, and filing cases for microscopic slides. The model ward is equipped with modern hospital beds, invalid chairs, bedside stands, a wheeled stretcher, litters, a portable bath tub and stretcher, medicine cases. a case of surgical dressings, etc.

"The Tuberculosis Exhibit is to consist of a model of the Marine Hospital Sanatorium located at Fort Stanton, New Mexico. This together with views of the buildings and surrounding country are shown to emphasize the advantage of light and air in the treatment of tuberculosis.

"The Quarantine Section includes a model of a detention camp intended for use in time of epidemic, also models of the quarantine stations at Delaware Breakwater and Reedy Island, and a model of disinfecting machinery used at the latter station.

"The X-Ray Section will be installed in a room constructed for the purpose. Two modern coils are to be shown, including X-ray tubes and flouroscopes, also a high frequency apparatus and the various accessories, which naturally form a part of such an exhibit. In addition, there are to be shown numerous photographs to illustrate the uses to which this apparatus is used at the different hospitals of the service."

Salt in the oven under baking-tins will present their scorching on the bottom. Salt puts out fire in the chimney. Salt and vinegar will remove stains from discolored teacups. Salt and soda are excellent for bee stings. Salt thrown on soot which has fallen on the carpet will prevent stain. Salt put on ink when freshly spilled on a carpet will help in removing the spot. Salt in white wash makes it stick. Salt thrown on a coal fire which is low will revive it. Salt used in sweeping carpets keeps out moths.

Medical Psychology—George V.N. Dearborn of Boston, Mass. (Med. Rec. Jan. 30, 1909), considers that the public in general know more than the profession of mental healing and psychology. He deplores the lack of education and the normal mind. There should be given to the students a scientific knowledge of the normal functions of the mind. Mind is indispensable in the conduct of life. Considered as associative memory, mind shows how an animal can profit by his experiences. Mind finds its physical basis in the neuroplasm, the protoplasm of the nerves. There are difficulties in teaching psychology to student; one is their quest after the almighty dollar and what will bring it soonest; another is the materialistic viewpoint. Medical psychology is a relatively simple science descriptive of easily observable facts. The most obvious need of psychology comes from psychiatry and neurology. The surgeon should be familiar with the effects of mental processes on the success of his operations. In legal medicine psychoolgical knowledge should be the basis of all study. The nature of personality is not enough studied in medical schools. Sexual psychology is also in need of study and proper teaching.

Greater New York Number.—An unusual feature of medical journalism will be presented in the March issue of the American Journal of Surgery. The entire original subject-matter in this issue will be contributed by New York City surgeons of note, and a number of new operations will be first presented therein. Among the contributions to appear are: A New and Simple Method of Intestinal Anastomosis (illustrated), Howard Lilienthal, M.D.; Sigmoiditis and Perisigmoiditis, James P. Tuttle, M. D.; Sacral Suspension of the Uterus—A New Technic (illustrated), James Van Doren Young, M.D.; Cancer of the Breast, Willy Meyer, M. D.; A Modified Operation for Inguinal Hernia (illustrated), Albert E. Sellenings, M.D.; The Localization and Removal of Foreign Bodies with Especial Reference to Those in the Skeletal Tissues (illustrated), Dr. Walter M. Brickner; An Operation for Direct Blood Transfusion with a Description of a Simple Method, John A. Hartwell, M.D.; Plastic Mastoid Operation —A New Method of Operating in Acute Mastoiditis, T. F. Hopkins, M.D.; Dislocation of the Cervical Vertebrae (illustrated), James P. Warbases, M.D.; Surgery to the Pericardium and Heart, H. Beeckman De Lattour, M.D.; Fibrosis Uteri and Its Surgical Treatment (illustrated), S. W. Bandler, M.D.; Laryngeal Stenosis in the Adult, Successfully Treated by Intubation, William K. Simpson, M.D.

Torticollis after adenoidectomy means a post-operative infection.—Am. Jour. of Surg.

SURGICAL SUGGESTIONS

(American Journal of Surgery)

The best point for entering the maxillary antrum is about one inch from the edge of the nostril, below the inferior turbinate.

A foreign body in the nose of a child is often suggested by a discharge of mucus from one side only.

Pain and swelling of the tip of the nose, is often caused by an infection of the hair follicles in the vestibule.

There is less likelihood of injuring the deeper vessels in excising tonsils if the instrument is pressed in deeply to engage the organ rather than exerting pressure from the outside.

Hard tonsils preponderating in connective tissue, are better removed by the cold snare than by a sharp instrument. The snare closes the blood nerves; the tonsillitome opens them.

An hypertrophied lingual tonsil sometimes causes much discomfort, giving a heavy, sore feeling to the base of the tongue. It may be necessary to remove it.

The differentiation between a specific and tuberculous ulcer of the fauces is sometimes very difficult. As a rule the specific ulcer is shallow, grayish, with a regular margin, not very tender and does not cause dysphagia; on the other hand, a tuberculous ulcer is deeper, more sloughy, irregular in outline, has an outer inflammatory zone, is exquisitely tender and causes great pain on swallowing; laryngeal examination may reveal a tuberculous condition of the cords.

Suppurating arthritides do not always require exposure of the joint or even large incisions, irrigation and drainage. Such treatment invites mixed infection and ankylosis. If the pus be very thin—even though of streptococcic origin—thorough aspiration (which may need to be repeated) and immobilization may effect a rapid cure with perfect function. Purulent arthritis and periarthritis as it occurs in small children as a complication of one of the exanthemata (often in connection with trauma) is often quite amenable to conservative, and even ambulant treatment; aspiration, or irrigation and drainage, and immobilization. Judgment is needed, of course, to deermine what cases are amenable to this conservative surgery, and what point in the treatment it must be abandoned in favor of more extensive intervention.

MEDICAL MISCELLANY

It is stated that a nursing baby's colic will cease, if the mother will take a one grain asafetida pill, once a day for a week.

Some Serious Lapses in Administrative Hygiene.—Homer Wakefield, of New York (Med. Rec., Feb. 6, 1909), characterizes degenerate nucleins and degraded albumins which are putrefactive products as causes of disease. They are found in bad milk, musty eggs, and undrawn cold storage poultry. The hygiene of the cow, as to exercise, pure air and proper food is neglected and reacts upon the milk. Poultry stored undrawn, when thawed allows toxins from the entrails to pass out into the meats of the carcass. Putrefactive products, indol and skatol, are found in this poultry when it is eaten. They cause nausea, vomiting, headache, drowsiness, and fever; later, intestinal inflammation and intoxication, nephritis, and subcatabolism. The cornering of eggs causes us to use stale eggs the year round. The author advocates dating of eggs and of poultry when killed. The sale of poultry one year after storage should constitute a felony. All undrawn poultry should be confiscated.

The Claim of Water as a Therapeutic Agent.—Simon Baruch, of New York (Med. Rec., Feb. 27, 1909), claims great things in therapeutics for the various methods of using water. It may be a stimulant when used with a sudden cold dash in faintness, in the asphyxiated infant, in typhoid fever, and in frost bite; as a sedative at a temperature of 100 degrees, the time being prolonged; as a tonic it is well known; as a diuretic it is used frequently; as a diaphoretic it is used in the form of the hot pack. Tepid water internally has an emetic effect. As a purgative even the layman uses it. To promote metabolism it is necessary. As an antispetic it has taken the place of poisonous drugs. As an antipyretic the tepid bath is valuable. In regard to the history, the first advocate of water in therapeutics was Hippocrates. A century later Asclepiades was an earnest advocate of its use. Several hundred years later Paulus Aegineta, in the seventh century, used it in sunstroke. A thousand years elapsed before Vander Heyden taught its application. Currie used it in typhus. In the early part of the eighteenth century Hufeland used it again. Priessnitz, an unlettered peasant, adopted its use and spread it among his followers. The medical profession have neglected the therapeutic application of water up to very recent times.

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PRACTICAL FORMULAS.

A. C. F. BROWN, M. D.

COUGH (Adults).—

℞ Ammon. Muriat..... 3iiss
Spts. chloroformi..... 3vj
Tinct. opii camph..... 3j
Tinct. hyoscami..... 3j
Syr. tolu..... 3vj
M. Sig.: 3ii in water every three hours.

℞ Acidi hydrocyan. dil.....
Tinct. bellad.....aa xxxvj
Ext. opii. liquid..... 3j
Syr. demonis..... 3ss
Mucil acaciae .....ad 3iss
M. Sig.: i a t a dose.

CROUP.—

℞ Syr. ipecac..... 3ix
Syr. scillae..... 3iss
Tr. opii camph..... 3ii
M. Sig.: 3ss every three or four hours.

SEDATIVE MIXTURE.—

℞ Pot. bromid.....
Pot. bicarb.....aa gr. xx
Vini. ipecac.....*m* xx
Glycerini..... 3i
Syrupi.....3iv
Aqua distill..... 3iij
M. Sig.: 3i every three hours.

COUGH (Children).—

℞ Vini. ipecac.....*m* xxxij
Papaine.....*m* xxxij
Spts. artheris nit..... 3j
Glycerini..... 3j
Syr. pruni virg q.s. ad..... 3ij
M. Sig.: 3i every two hours.

FEVERS.—

℞ Pot. brom..... ℈iv
Tr. bellad.....*m* xxxij
Tr. aconiti.....gtts viij
Spts. aetheris nit..... 3iij
Mist. pot cit ....,.....q.s. ad 3viij
M. Sig.: Tablespoonful every two or three hours.

℞ Morph. acetat.....gr. j
Sacch. alba..... 3ij
Spts. aetheris nit..... 3ij
Liq. ammon. acet..... 3iv
Aqua. camph. q.s. ad..... 3viij
M. Sig.: One tablespoonful every two or three hours.

BRONCHITIS IN AGED.—

℞ Potassi iodidi..... 3iiss
Syr. picis liq..... 3iv
Syr. pulv Dov..... 3j
Syr. tolu .....q.s. ad 3vj
M. Sig.: 3i t.i.d

EXPECTORANT IN BRONCHITIS.—

℞ Ammon chlor..... 3j
Syr. scillae.....
Syr. pruni. virg.....aa 3ss
Olii anise.....gtts iij
Tr. sanguinariae..... 3j
Mist glycyrrhizae..... 3iv
M. Sig.: Teaspoonful every three hours.

THERE exists in the world two factors—material and thought. The earth is the material and thought the developer.—Byron Robinson.

ONE should not rely on feeling a tonsil engaged in a tonsillitome; he should see that it is if he does not wish to take the chance of cutting away t e pillars of the fauces, a portion of the tongue, the floor of the mouth or the uvula.—Amer. Jour. of Surg.

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MEDICAL MEMORANDA.

The fluid extract of geranium given internally will control passive hemorrhage. Applied directly it controls hemorrhage from a tooth, nose bleeding and other simple local hemorrhages.

To arrest the violent spasmodic conditions of whooping cough set a basin of scalding water on the floor, and pour into it an ounce of strong liqiud ammonia; the fumes, it is claimed, give instant relief.

After an Operation for extensive carbuncle of the neck, a comforting support may be supplied by placing under the bandage a piece of heavy manila cardboard (book-binder's board), wetted and shaped to the back of the head and neck.

Papine in the new 16-oz. bottle as offered from Jan. 1, 1909, by Battle & Co., Chemists Corporation, St. Louis—shows a saving to the profession of $2 per dozen, as against the price of two dozen of the 8-oz. size at $8.50 per dozen and in which latter there will be no change, either as to size or price.

"I have been taking catina pillets for my weak heart, occasioned by a continued illness of three months, and have been much benefited by it. I am now able to get along better, since my heart has become stronger and more regular, and I cheerfully allow you to use my endorsement as to its unquestionable value in functional heart troubles."—Jos. Adolphus, M. D., Atlanta, Ga.

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Cataplasm of Kaolin (by Paul Caldwell).—Probably no preparation of the pharmacopeia has received as much attention from pharmacists as the cataplasm of kaolin. As yet there seems to be no one who has been able to so manipulate the official formula for it as to produce a satisfactory product. I have before me extracts from papers on it, written by six different men eminent in pharmacy, and no two of them agree on a plan of procedure and only one is of the opinion that the pharmacopeia is right.—Abstracted from the Druggists Circular. It is a matter of small moment whether or not pharmacists can make this preparation, as it is at best but a poor imitation of antiphlogistine, for which it is recommended as a substitute. Up to date no one has successfully imitated a $20 gold piece and the same may be said of antiphlogistine. As long as the Denver Chemical Mfg. Company maintains the high standard it has set for its product there will be little necessity for the druggist to worry over methods of manufacturing cataplasm of kaolin.

First Word.—Ever since the art of medicine emerged from its chrysalis stage of mysticism, mummery and moonshine, iron in some form has been administered in conditions of depleted vitality, which we now know to be so frequently due to a deficiency of this essential element in the vital circulating fluid. Until the advent of modern methods of diagnosis and the development of the latter day science of hematology, iron was given empirically, because its beneficial results were so patent that the veriest tyro in medicine could appreciate and understand them. But modern pharmacology has also advanced pari passu with the progress of medicine, and now-a-days there is but little excuse for inflicting the embarrassed digestion of the depleted anemic with any of the old irritant and astringent metallic, ferruginous salt. As far back as 1849 Hannon demonstrated that iron is not the only natural hematinic, and the subsequent experimental work of Ruehle, Petrequin and others confirmed his announcement that managanese also possesses the property of stimulating the formation of erythrocytes and increasing the percentage of oxygen-carrying hemoglobin. The preparation of iron and manganese, briefly described in the following pages, is based upon modern fact, not upon old-time speculation, and is a result of a careful and exhaustive study of the problems concerned in the subject of iron (and manganese) absorption, as applied to the formulation of an efficient hematinic, free from the manifest disadvantages of the more irritant and less absorbable forms of these metals. The therapeutic results attained in practically all of the civilized countries of the globe, have been so eminently and uniformly satisfactory to the profession at large, as to encourage the exploitation of innumerable imitations, none of which, however, are in any respect comparable to the original preparation of Dr. Gude. There is, indeed, but one peto-mangan, the merits of which are described in the following pages. (The above is an extract from the preface of a little pamphlet which will be sent to any physieian upon request to the publishers, Messrs. M. J. Breitenbach Co., New York.)